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ABSTRACT

In order to give attention to the varied backgrounds and experiences of individuals entering adult basic education classes, a change from the established preselected program is suggested. This new approach would center around the assessment of a student's level of development in essential reading skills, particularly of word-attack skills. Such a program would allow teachers to do a more realistic and efficient job of teaching reading to adults and would allow adults to receive instruction at levels commensurate with their needs. It is recommended that when adults enter an adult basic education course they be given tests to determine the levels of their word-attack skill development. They would then be assigned to programs designed to meet their individual needs. A scope and sequence statement of word-attack skills is presented in the appendix. (MS)

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DEVELOPMENT OF SPECIFIC READING SKILLS

IN ADULT EDUCATION

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In this paper a rationale for a skill development focus in Adult Basic Education reading classes is presented and a list of essential reading skills is suggested. Then an empirical validation of a skill-centered approach is reported to support the notion that instruction in specific reading skills will raise the level of general reading achievement.

Rationale for a Skill Development Focus in Adult Reading Instruction

An adult comes to an ABE class with varied background, experiences and abilities. He probably has had some formal schooling and has some ability to read, however limited. A few reading skills, such as the ability to recognize certain common words at sight, may be relatively well developed while others, such as structural analysis skills, may not.

The ABE instructor is thus faced with the challenge of making the reading class interesting to adult students of varied backgrounds and abilities. Furthermore, if adult students are not provided with some evidence of instant success, they may not be back for the next class session. The real challange, then, is to provide adult students with the tools that will enable them to read independently as soon as possible. Adults are usually not willing or able to wait five years before they become able to function at a level of minimal literacy.

In response to this challenge, ABE instructional materials have frequently employed the sentence approach to teaching reading in an attempt to provide some demonstration of instant success. On the other hand, instruction in specific reading skills has been delayed and generally not emphasized on the assumption that adults would find that approach tedious and unrewarding. The problem with such a viewpoint, however, is that many adults do not develop the skills necessary for truly independent reading. While they may experience success at first, too often they remain unable to progress to more difficult reading material because they lack the means to unlock words that have not been directly taught to them.

Suppose, then, that an ABE instructor is convinced of the need to teach reading skills while using adult content. He faces a very real problem because in all likelihood every adult in his class has a different set of skill development needs. We feel that the best way to tackle the problem is to start with a list of reading skills which are considered to be essential to successful reading. Then, using the skill list as a framework, the teacher can assess the skill related behaviors

of individual students to determine which of the specific skills each students lacks and which he has mastered. Finally, the teacher can provide instruction that is focused on deficits, for if instruction is to be meaningful to each student, it must be directed specifically to his particular needs.

A basic problem with such an approach may be to find an adequate list of skills to use as the basis for a skill development program. As mentioned earlier, present instructional programs in ABE are rarely systematic in developing specific reading skills and usually they do not provide a scope and sequence statement of the skills that are taught. Therefore, a list of essential reading skills with historical and consensual support is suggested in the next section of this paper. Given such a list the skill development status and progress of adult students may be monitored regardless of the instructional materials used.

Word Attack Skills

A scope and sequence statement of word attack skills is presented in the Appendix. Only word attack skills are dealt with here although similar procedures could be followed for other areas of reading, such as comprehension and study skills.

This list of word attack skills is from the Wisconsin Design for Reading Skill Development (2), a skill-centered program for the elementary school. There is, of course, no reason to believe that the reading skills essential for beginning adult readers are different from those required by children. The reading skills that serve as a basis for the

Wisconsin Design have the consensual support of teachers, reading consultant, and researchers. In developing the list, we started with a good public school curriculum guide and then refined it over a period of several years on the basis of feedback from tryouts and developmental efforts in the schools.

The present list of word attack skills, then, may serve as the basis for a reading skill development program. Behavioral objectives have been written to specify the criterion behaviors needed to demonstrate skill mastery. Workers in ABE could devise assessment tests with adult content by using the skill list as a base and the behavioral objectives as guides for examining skill related behaviors. Group and individual assessment tests, key to the skills in the outline, already exist as components of the Wisconsin Design. These tests, although intended for children, could be modified for use in assessing the skill development of adults.

After an adult student's skill development status has been determined, the instructor is in a position to provide instruction designed to remedy specific weaknesses. By knowing the level on which the adult is functioning and his specific skill deficits, the instructor may identify materials that are appropriate for each individual student. Instruction can thus become meaninful to each student, especially if he is shown his skill development profile to illustrate his specific strengths and weaknesses.

The assumption underlying this approach is that instruction in specific skills in which the student is deficient will raise the level of his general reading achievement. The validity of this assumption is examined in the next section.

Relationship of Skills and General Reading Achievement

Teaching specific reading skills, such as those listed in Appendix A, may be considered a valid approach to reading instruction if students' attainment of the skills is directly related to their level of general reading achievement. This relationship was explored by administering the group tests from the Wisconsin Design for Reading Skill Development to children in Grades 1-6. Although the data presented in this section are from children's test results, support for a skill-centered approach to reading instruction would serve as general evidence of the validity of the approach.

Method and Analyses

Scores on standardized reading achievement tests (see Table 1) were obtained from the regular fall testing program of a school using the Wisconsin Design. At the same time the students were also given the Wisconsin Tests of Reading Skill Development: Word Attack.

Insert Table 1 about here

A subject was assigned a score of 1 on a word attack subtest if he answered 80% or more of the items correctly or a zero if he answered fewer items correctly. These scores were added across all subtests to yield a mestery level score for each subject which indicated the number of word attack subtests he passed at a given level. Thus, a given mastery score of, say, 1, where the highest possible is 7, meant that the subject mastered any one of seven subtests and that different

subjects could have the same mastery score without being proficient in the same specific skill. Thus, the method of scoring and analysis assumed that all skills were of equal importance.

Since the school in the study was non-graded--organized into units by age groups rather than by traditional grade levels--the data were analyzed by unit as well as by age-grade equivalents. The data for each group were analyzed by multivariate analysis of variance to determine the regression of the standardized test scores on the mastery level score--the number of skills mastered at a given level. Orthogonal polynomials were used to isolate the various components--e.g., linear, quadratic, cubic, etc.--of the curves.

The first step in the statistical analysis was to test the non-directional null hypothesis that there was no relationship between general reading performance and mastery level using multivariate analysis of variance. If this hypothesis could not be rejected by the evidence from the data, using an F-test requiring significance at the .05 level, there would be no need for further analysis as the model would be totally without empirical support. Otherwise, the next step would be to determine if the relationship were "positive". A statistical test was thus made of the hypothesis that all components of higher order than the quadratic component were zero. If this hypothesis could not be rejected, it would be inferred that the relationship was well approximated by a curve with just linear and quadratic components.

Results and Interpretations

Results of the test of the hypothesis of no relationship between mastery score level and general reading performance by grade and unit are shown in Table II. The probabilities of observing F-ratios as large or larger than the ones actually observed if the null hypothesis were true are shown in the first row of Table II labeled "Linear and higher

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Insert Table II about here

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components." The null hypothesis must be rejected in every case. A statistically significant relationship between word attack mastery level and reading performance as measured by general tests was found at all grade levels.

The next step was the determination of the direction of the relationship. The relationship was found to be positive in that as mastery of specific skills increased so did reading performance. However, at Grade 2 the relationship appeared to be complex and reading performance did not always increase as mastery level increased. If one were to compare results between grades it would appear that the relationship noted above becomes more pronounced, or in simpler form, as grade increases. This may reflect the fact that at the earlier grade levels general reading ability is less developed and reading scores may reflect many other variables. Or, it may be that it is more difficult to obtain reliable estimates of reading ability at the lower grade levels. Or, perhaps, this is the result of the particular selection of tests used at each grade level. A more detailed explanation of the analyses and results may be found elsewhere (1).

Since general reading level--as measured by standardized reading achievement tests--increased with the number of skills mastered at a given level, the validity of a skill-centered approach to reading instruction is supported. Thus, it appears that instruction in specific reading skills can serve to raise students' general level of functioning. This empirical support for the basic assumption underlying the Wisconsin Design is, to the present writers, sufficient encouragement to continue with the development of a skill-centered system.

Conclusion

While the need to pay attention to the individuals involved in ABE classes may be quite obvious, the fact is that more often than not the individual is forced into a pre-selected program and treated as if he were a member of a homogeneous group. We have suggested that a skill-centered system of reading instruction would permit ABE teachers to do a more efficient, realistic job of teaching reading to adults with widely varied backgrounds. More specifically, we have suggested that the model provided by the Wisconsin Design for Reading Skill Development might be adapted for use in ABE. Essential skills are not likely to be very different for adults than for children, so modifications in format and wording of certain tests may be the main requirement in shifting from an elementary school to an adult program context. Preliminary data offer encouraging empirical support for a skill-centered approach to reading instruction.

REFERENCES

1. Fischbach, Thomas J. Study of relationships of reading mastery level to general reading achievement to validate diagnostic reading tests. Paper presented at the annual meeting of the American Educational Research Association, New York, 1971.

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APPENDIX

WISCONSIN DESIGN FOR READING SKILL DEVELOPMENT

OUTLINE OF READING SKILLS

Wisconsin Design for Reading Skill Development
Outline of Reading Skills

Word Attack

LEVEL A

1. Listens for rhyming elements
    a. Words
    b. Phrases and verses
2. Notices likenesses and differences
    a. Pictures (shapes)
    b. Letters and numbers
    c. Words and phrases
3. Distinguishes colors
4. Listens for initial consonant sounds

LEVEL B

1. Has a sight word vocabulary of 50-100 words
2. Follows left-to-right sequence
3. Has phonic analysis skills
    a. Consonant sounds
        1. Beginning
        2. Ending
    b. Consonant blends
    c. Rhyming elements
    d. Short vowels
    e. Simple consonant digraphs

4. Has structural analysis skills

    a. Compounds words

    b. Contractions

    c. Base words and endings

    d. Plurals

    e. Possessive forms

LEVEL C

1. Has a sight word vocabulary of 100-170 words

2. Has phonic analysis skills

    a. Consonants and their variant sounds

    b. Consonant blends

    c. Vowel sounds

        1) Long vowel sounds

        2) Vowel plus r

        3) a plus l

        4) a plus w

        5) Diphthongs oi, oy, ou, ow, ew

        6) Long and short oo

    d. Vowel generalization

        1) Short vowel generalization

        2) Silent e generalization

        3) Two vowels together

        4) Final vowel

    e. Common consonant digraphs

3. Has structural analysis skills
   a. Base words with prefixes and suffixes
   b. More difficult plural forms
4. Distinguishes among homonyms, synonyms, and antonyms
   a. Homonyms
   b. Synonyms and antonyms
5. Has independent and varied word attack skills
6. Chooses appropriate meaning of multiple meaning words

LEVEL D

1. Has a sight word vocabulary of 170-240 words
2. Has phonic analysis skills
   a. Three-letter consonant blends
   b. Simple principles of silent letters
3. Has structural analysis skills
   a. Syllabication
   b. Accent
   c. The schwa
   d. Possessive forms

Table I

Wisconsin Design and

Standardized Reading Achievement Tests Administered

Grade	Wisconsin Tests of Reading Skills Development	Standardized Reading Achievement Tests
1	Level A	Metropolitan Readiness Tests
2	Level B	Stanford Achievement Test, Primary I
3	Level C	Stanford Achievement Test, Primary II
4	Level D	Stanford Achievement Test, Intermediate I
5	Level D	Stanford Achievement Test, Intermediate I
6	Level D	Stanford Achievement Test, Intermediate II

Table II

Multivariate Analysis of Variance

for Regression of Standardized Reading Scores

on Skill Mastery Level by Grade and Unit

Source* (Components of function of Mastery Score)	Significance Levels Grade/Unit 1/A & 1/B	2/C	3/C	3/D	4/D & 5/E	6/E
Linear and higher components (Linear only)	.002 (.002)	.0001 (.0001)	.02 (.0001)	.0001 (.0001)	.0001 (.0001)	.0001 (.0001)
2nd Order and Higher (Quadratic only)	.44 (.17)	.015 (.19)	.76 (.27)	.20 (.02)	.41 (.92)	.75 (.58)
3rd Order and Higher	.60	.002	.82	.44	.26	.69
Number Dependent Variables	5	4	3	3	2	2
Df for Error per Depend. Var.	61	46	21	38	149	57
Number of Skill Levels	7	11	10	14	7	7

* The various sums of squares (SS) used for the tests are not mutually exclusive as the SS for each major entry are included in the entries above it. The SS for the entries in parentheses are included in all major entries above.